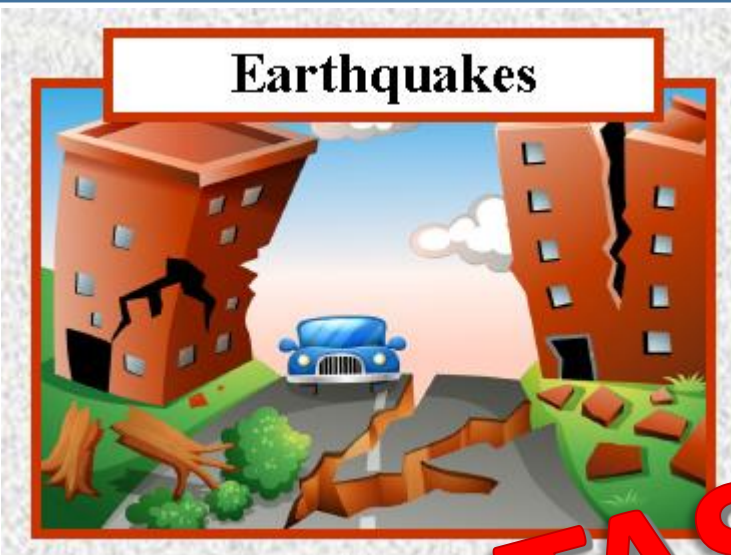


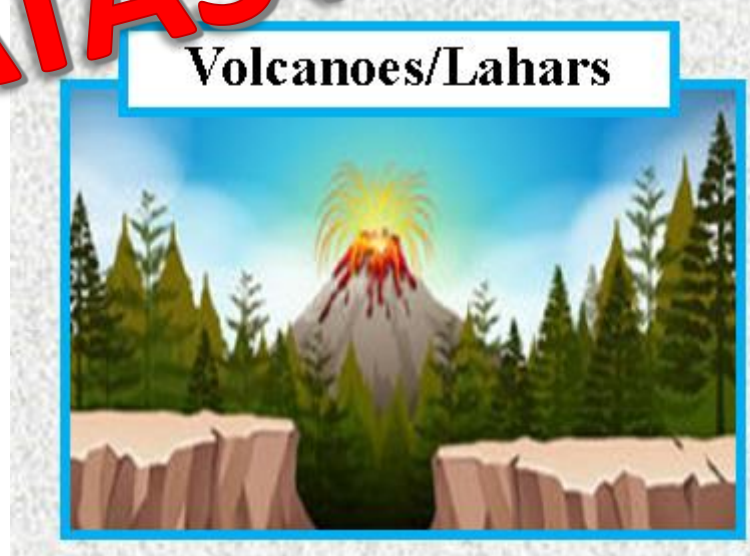


Catastrophic Incident Planning: Critical Infrastructure – Information Communications Technologies

April 14, 2019



CATASTROPHES



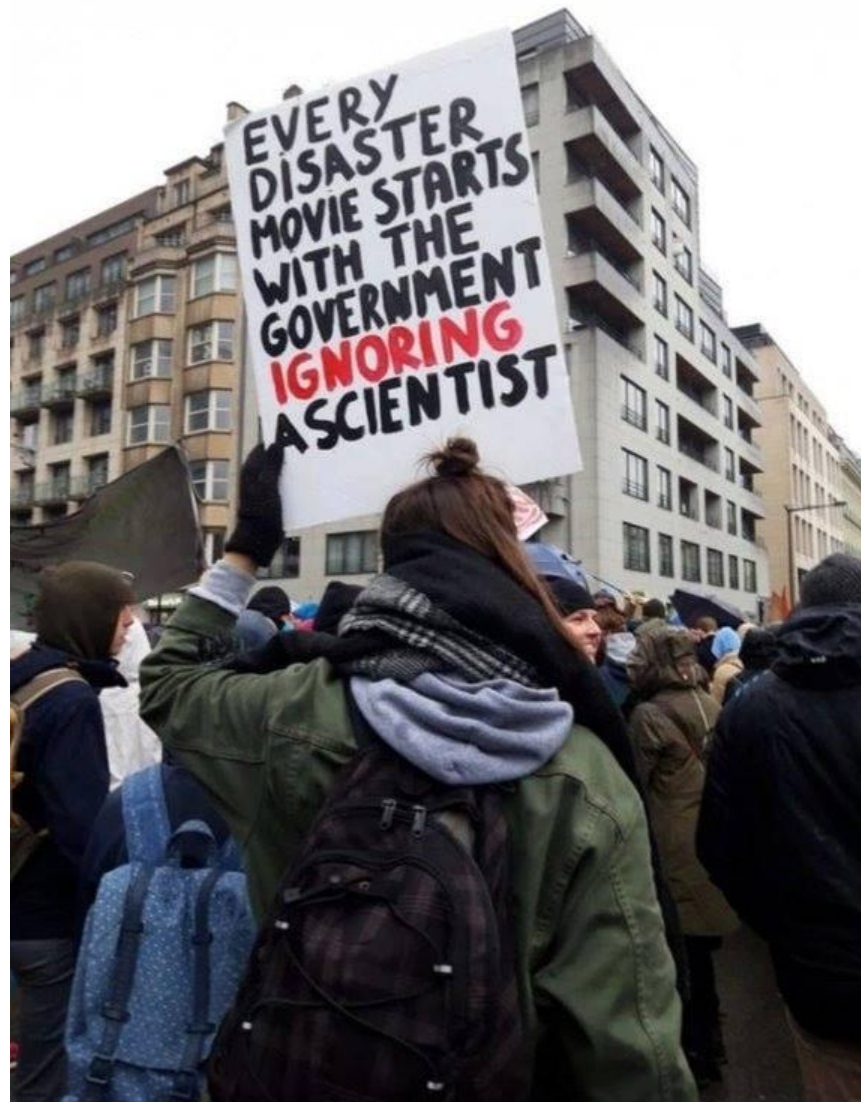


Definition of a Catastrophe

We are using the federal definition of a catastrophic incident, from the National Response Framework: **“A catastrophic incident is defined as any natural or manmade incident, including terrorism, that results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, or government functions.”**



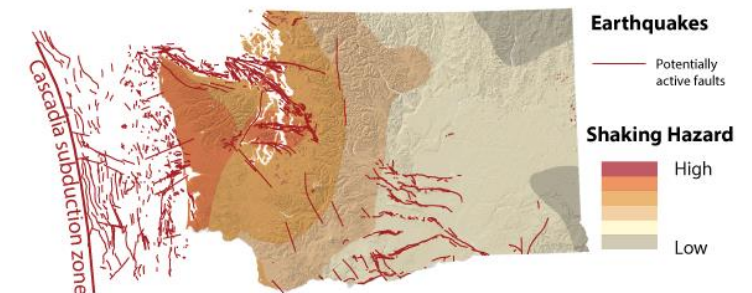
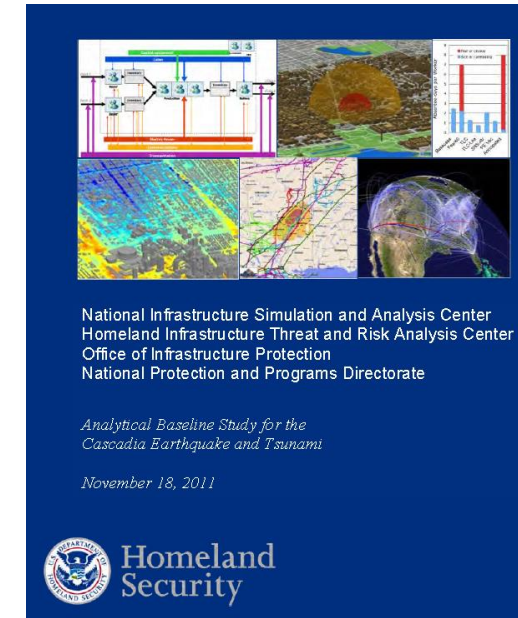
EMERGENCY MANAGEMENT DIVISION





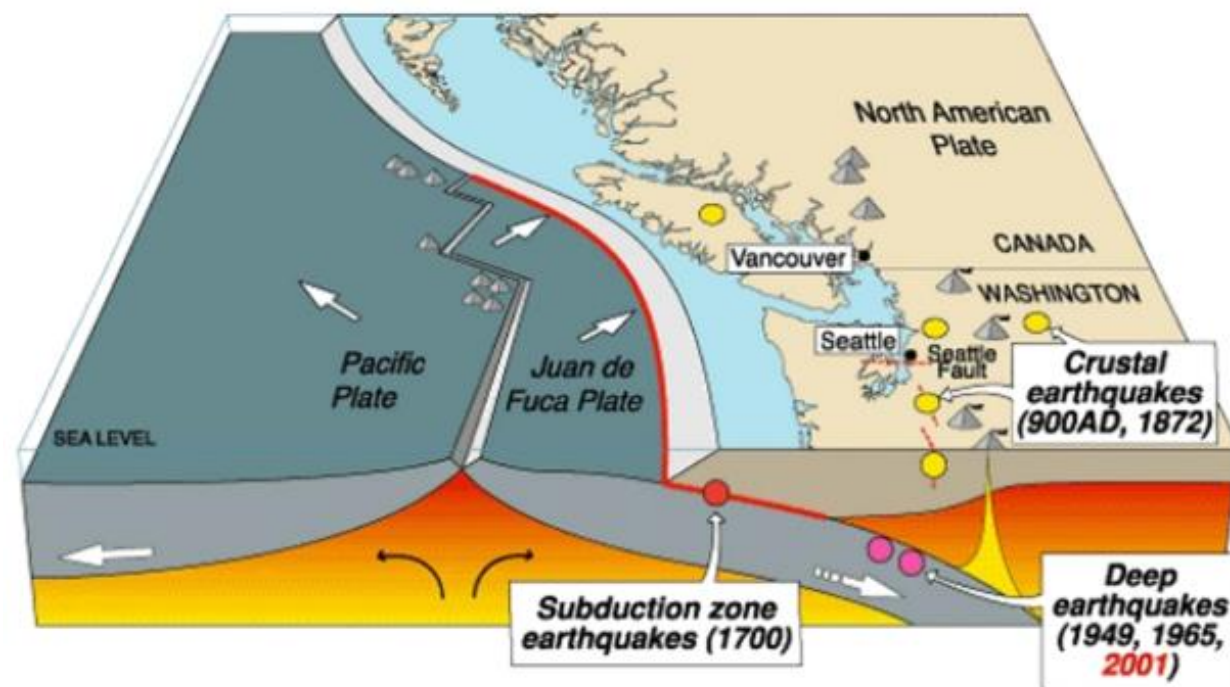
Scenario

- **Science-based efforts** drives planning and exercises efforts for scenarios and planning assumptions:
 - Risk assessments:
 - HITRAC
 - HAZUS for earthquakes and tsunamis
 - M9 tsunami modeling
 - Collaboration effort between Emergency Management Division, Department of Natural Resources, National Guard, FEMA, USGS, UW, and others.



Cascadia Subduction Zone Earthquake and Tsunami

- In Washington State, the Cascadia Subduction Zone Earthquake and Tsunami represents the “maximum-of-maximum” threat/hazard. It is used as our standard for catastrophic incident planning.
- However, this is not the only threat/hazard in Washington State for catastrophic incident planning considerations.





Cascadia Subduction Zone Earthquake Intensity Map

Shaking Intensity: 8 (Severe)

Damage slight in specially designed structures; considerable damage in ordinary buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls.

Shaking Intensity: 7 (Very Strong)

Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.

Shaking Intensity: 6 (Strong)

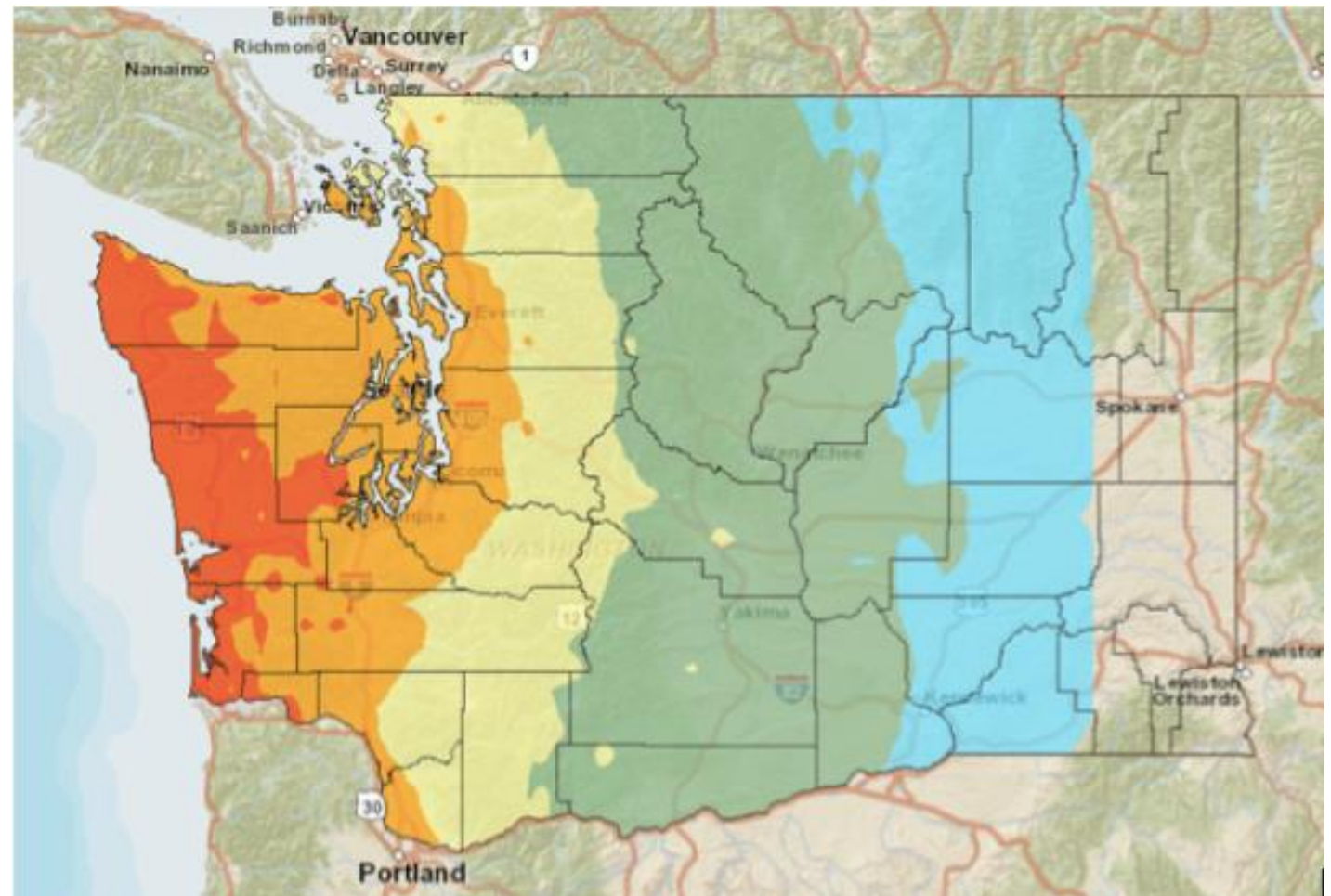
Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.

Shaking Intensity: 5 (Moderate)

Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.

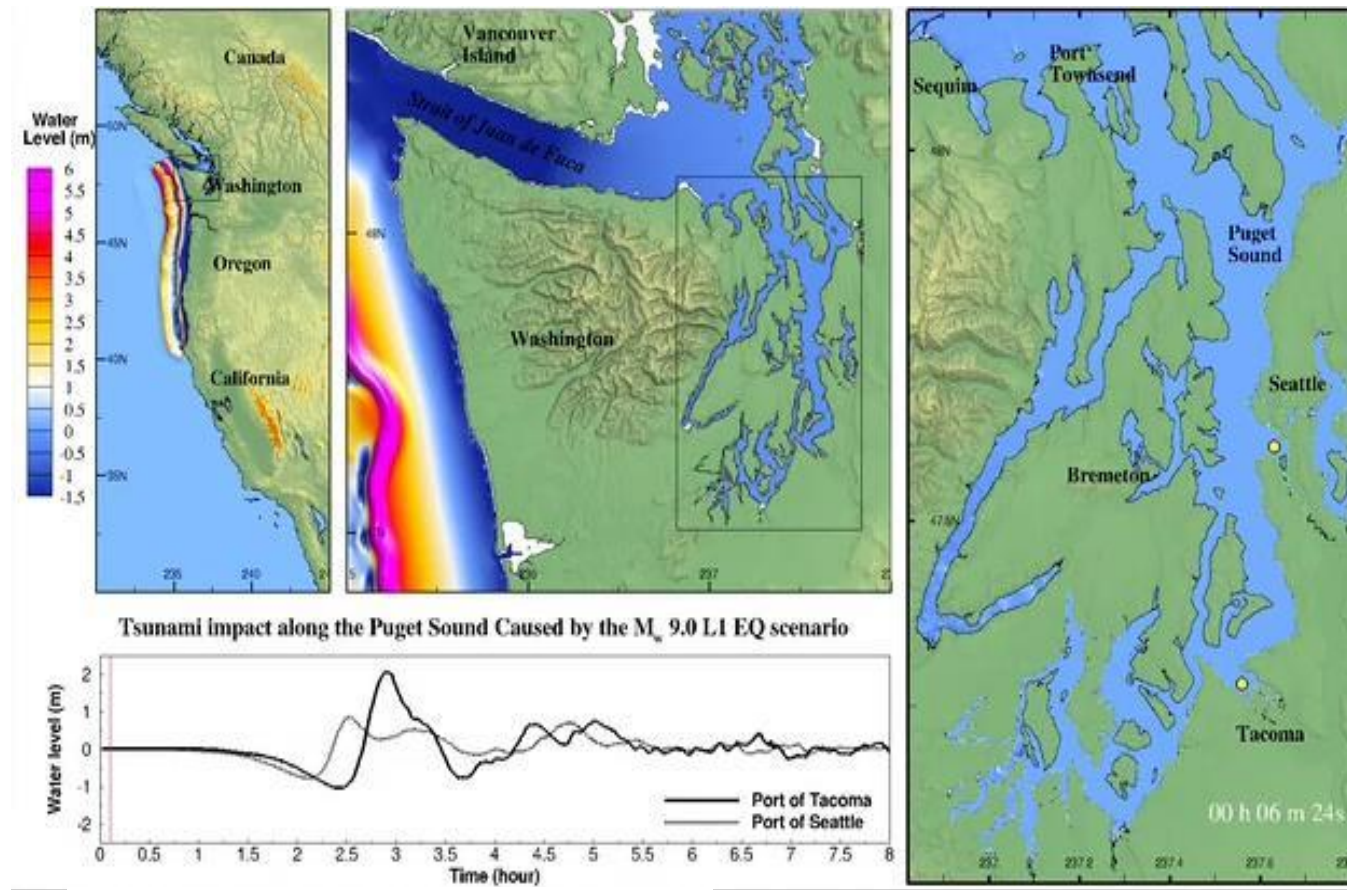
Shaking Intensity: 4 (Light)

Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.





Cascadia Subduction Zone Earthquake and Tsunami

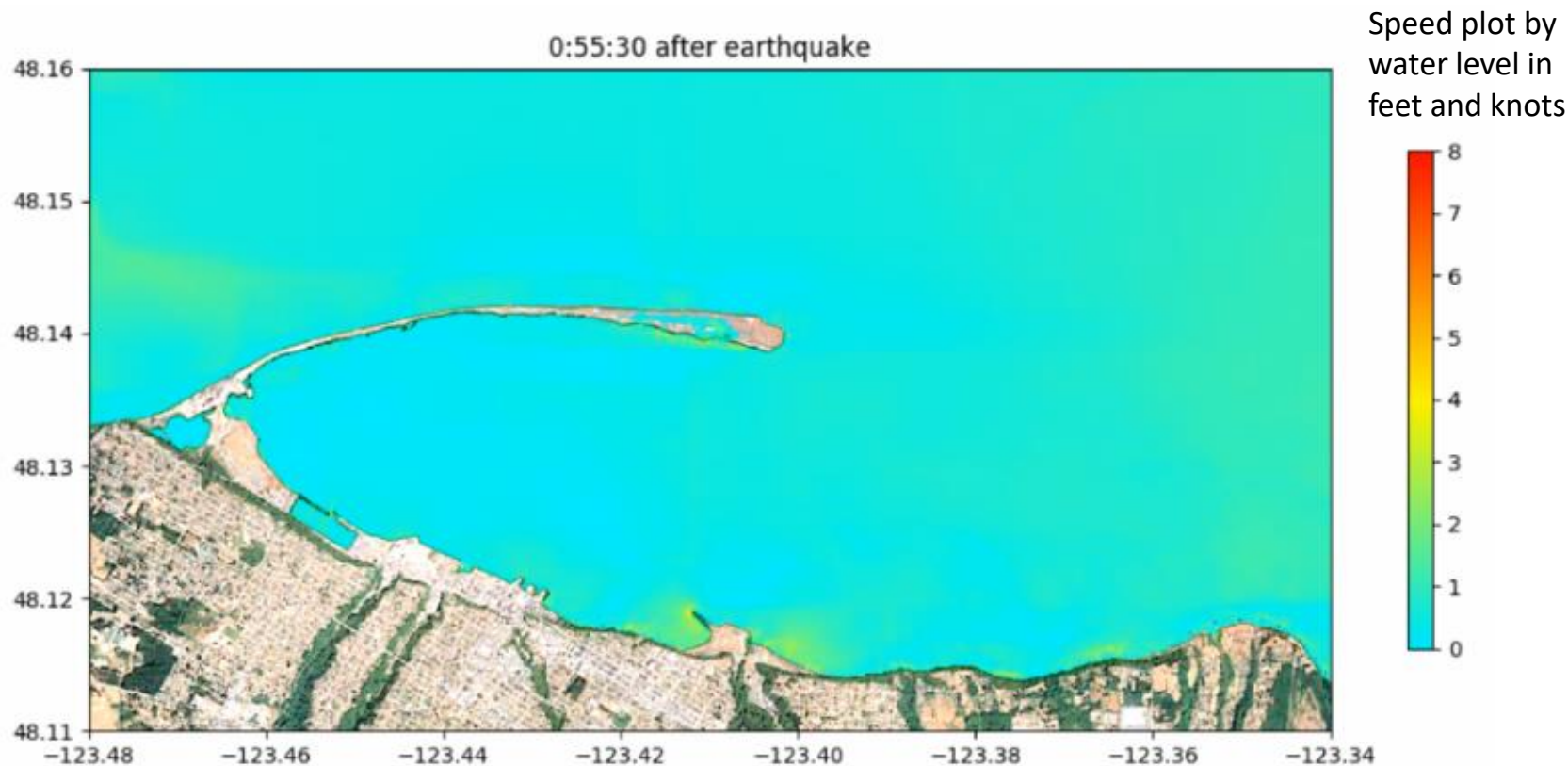


Animation Link:

ftp://ww4.dnr.wa.gov/geology/Corina_Forson/tsunami_animations_WA/



Cascadia Subduction Zone Tsunami: Port Angeles



Animation Link:

http://depts.washington.edu/ptha/WA/animations/PortAngeles_fig2.mp4



Characteristics of a Catastrophic Incident

- **Critical infrastructure is severely damaged or inoperable.**
- *First responders and supporting organizations cannot perform traditional initial incident response activities due to overwhelming losses of personnel, **facilities**, and/or **equipment**.*
- Local capabilities and mutual aid agreements are exceeded and exhausted.
- Span of control is impractical during the first several operational periods.
- **Situational awareness takes days to acquire.** There is little to no information sharing, and information received is fragmented, conflicting, and/or chaotic.



WA State Catastrophic Incident Framework

- The State Catastrophic Incident Planning Team (SCRIPT), made up primarily of state and local representatives, created the Catastrophic Incident Framework (Framework) that can be used by local, tribal, and state agency partners to develop their catastrophic plans.
- Version one of the Framework was promulgated on October 12, 2017.
- The Framework is a dynamic document and will be continuously updated by the SCRIPT.



CATASTROPHIC INCIDENT PLANNING FRAMEWORK

Statewide Catastrophic Incident Planning Team

An emergency planning framework to prepare for a catastrophic incident affecting Washington State, and the tribal nations, counties, cities, and towns therein.

https://mil.wa.gov/uploads/pdf/emergency-management/catastrophic-incident-planning-framework_version-1_101217.pdf



Framework Structure

- The structure of the Framework focuses on **life-saving** and **life sustaining** strategies. These strategies include:
 - Critical Transportation
 - Mass Care Services
 - Public Health, Healthcare, EMS, and Mortuary Services
 - Critical Infrastructure - Utilities Restoration:
 - Energy
 - Water and Waste Water
 - **Information Communications Technologies**



Framework Structure: Core Capabilities

- Within each of the strategies, core capabilities were identified to focus efforts. The core capabilities identified are:
 - Operational Coordination
 - **Operational Communication**
 - Situational Assessment
 - Logistics and Supply Chain Management



Strategy: Critical Infrastructure Utilities Restoration - Information Communications Technologies

- **Objective:** Stabilize critical infrastructure functions for information communications technologies, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community.
- **Critical Tasks:**
 - Decrease and stabilize immediate infrastructure threats to the affected population, to include survivors in the heavily damaged zone, nearby communities that may be affected by cascading effects, and mass care support facilities and evacuation processing centers with a focus on life-sustainment and congregate care services
 - Re-establish critical infrastructure within the affected areas to support ongoing emergency response operations, life sustainment, community functionality, and a transition to recovery
 - Provide for the clearance, removal, and disposal of debris
 - Formalize partnerships with governmental and private sector cyber incident or emergency response teams to accept, triage, and collaboratively respond to cascading impacts in an efficient manner.



Core Capability: Operational Communication

- **Objective:** Ensure the capacity for timely communications in support of security, situational awareness, and operations by any and all means available, among and between affected communities in the impact area and all response forces.
- **Critical Tasks:**
 - Ensure the capacity to communicate with both the emergency response community and the affected populations.
 - Establish interoperable voice and data communications to support response at the local, state, tribal, and federal levels through primary and redundant communications technology and protocols.
 - Ensure the capacity to provide the public with timely warning and emergency information.
 - Re-establish sufficient communications infrastructure within the affected areas to support ongoing life-sustaining activities, provide basic human needs, and facilitate the integration of recovery activities.
 - Re-establish critical information networks, including cybersecurity information-sharing networks, in order to inform situational awareness, enable incident response, and support the resiliency of key systems.
 - Partner with private sector providers to restore commercial voice and data communications capabilities.
 - Ensure redundant communication systems are in place, documented, procedures are developed, and staff are trained to use them.



Responsibilities: State and Local

OPERATIONAL COMMUNICATIONS	
STATE	LOCAL
Phase 1 – Planning Assess communications infrastructure, develop redundant communications plans, procedures, training, develop plan to assess damage to primary systems, review/update contracts, and coordinate with private sector.	Phase 1 – Planning Assess communications infrastructure, develop redundant communications plans, procedures, training, and develop plan to assess damage to primary systems.
Phase 2a – Initial Response Implement plan to assess functionality of primary communications systems, implement redundant communications systems, develop emergency repair plan, and coordinate/support private sector for repairs/restoration.	Phase 2a – Initial Response Implement plan to assess functionality of primary communications systems, implement redundant communications systems, and develop emergency repair plan.
Phase 2b – Employment Response Implement emergency repair plan, develop restoration plan for primary communications systems, return to using primary systems as it's restored and coordinate/support private sector for repairs/restoration.	Phase 2b – Employment Response Implement emergency repair plan, develop restoration plan for primary communications systems, and return to using primary systems as it's restored.
Phase 2c – Transition to Recovery Implement restoration plan and use systems.	Phase 2c – Transition to Recovery Implement restoration plan and use systems.



Statewide Catastrophic Incident Planning

- The Framework has laid the foundation for catastrophic planning in Washington State.



Catastrophic Incident Planning Building Blocks

SOPs, FIELD OPERATIONS GUIDE, JOB AIDS, ETC.

Tactical plans for a response to a catastrophic incident

STATE AGENCY/LOCAL/TRIBAL OPERATIONS PLANS

Operational plan to guide response to a catastrophic incident

STATE AGENCY/LOCAL/TRIBAL PLANS

State Agency Plans that uses the Framework as the basis for its structure. Details the state agency's role and responsibilities, critical tasks, gaps, and essential elements of information

STATE CATASTROPHIC INCIDENT ANNEX TO THE STATE CEMP

State level plan that uses the Framework as the basis of its structure. Appendices for life saving and life sustaining functional areas focus on state level roles, responsibilities, and coordination through critical tasks, gaps, and essential elements of information

FRAMEWORK

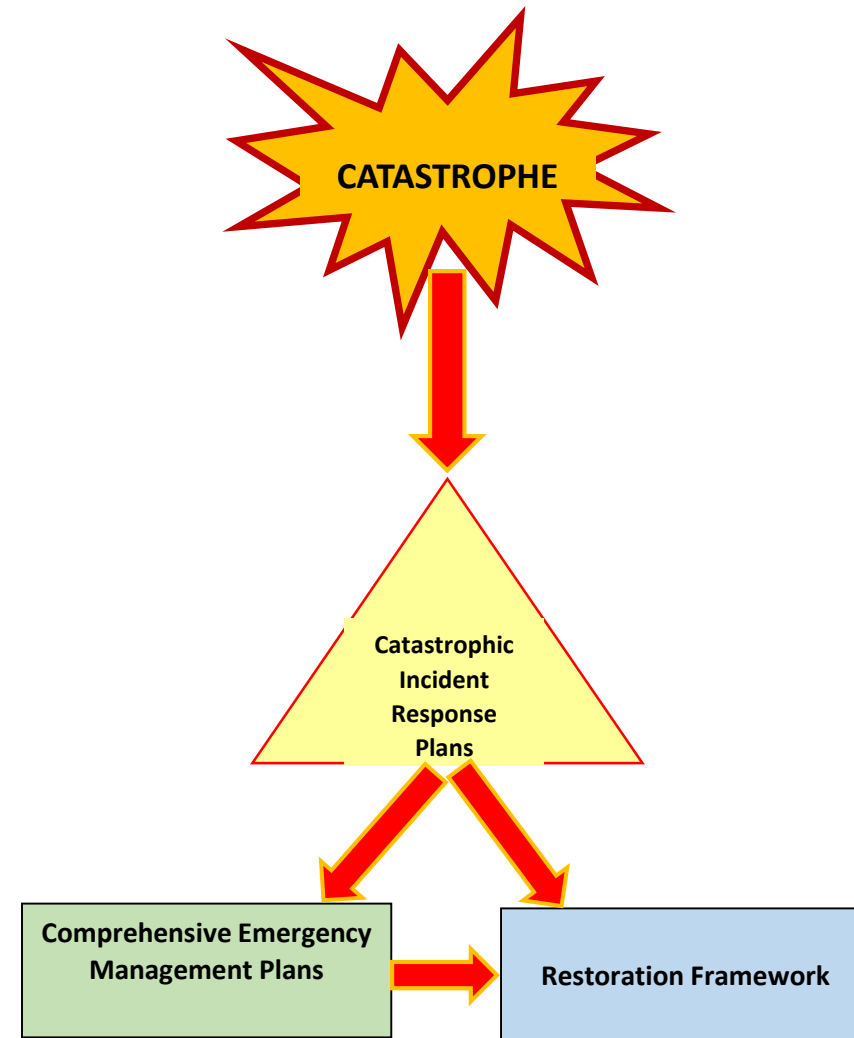
Provides guidance and direction for catastrophic planning for local jurisdictions, tribes, state agencies, and informs federal partners





Current Statewide Catastrophic Incident Planning Efforts

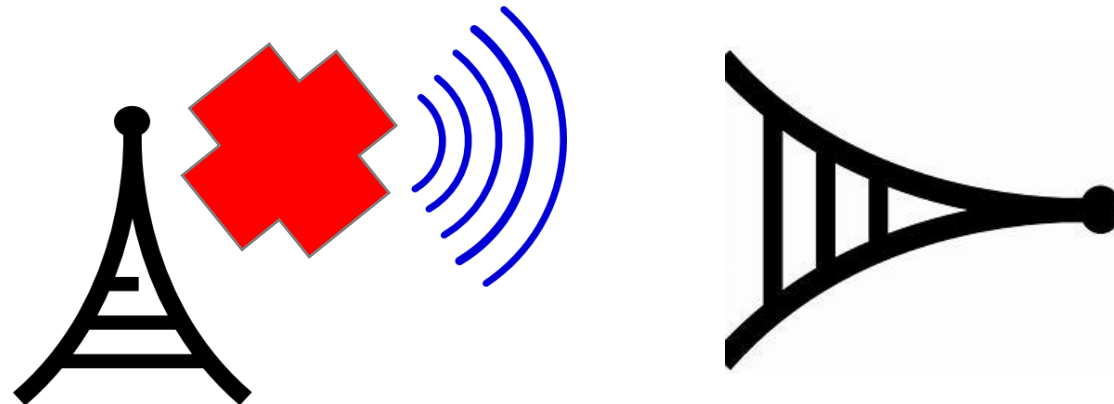
- The goal of the catastrophic incident plan is not to return to the pre-incident conditions, but rather to reduce the level of the incident to allow all aspects of state and local response to be based upon the state and local CEMPs.
 - Dovetails into CEMP and Restoration Framework





Emergency Support Function 2 (ESF-2) Planning Assumptions

- Communications and Information Communications Technologies
 - Will be impacted during a catastrophic incident
 - Loss of internet connection due to loss of power
 - Overwhelmed or lost phone and cell service
 - Towers down (physical and loss of power) and antennae alignment lost
 - Are needed infrastructure for response
 - Will be integral to life saving and life sustaining core capabilities and strategies





Expectations, Roles, and Responsibilities for ESF 2 Planning

- ESF 2: the Military Department IT Division is the lead coordinating agency
- ESF 2 works with partners and stakeholders to develop catastrophic incident plans
- ESF 2 is a member of the Statewide Catastrophic Incident Planning Team (SCRIPT)
- Emergency Management Division's Catastrophic Planner will work with ESF 2 to facilitate plans





Washington Emergency Communications Coordination Working Group (WECCWG) Support

- Identifying, coordinating, prioritizing, and planning for infrastructure prior to an incident is critical
- Provide input for plans, and participate in training and exercises to validate planning assumptions
- Establish Memorandums of Understanding, Memorandums of Agreement, and Interagency agreements with state and partners, as needed
- Identify interdependencies between the state and private sector for Communications and Information Communications Technologies
- Identify and develop repair protocols



Road Map for Next Steps

- The SCRIPT will be conducting an Outreach Program to operationalize the Catastrophic Incident Planning Framework
 - Critical Transportation is the first strategy
- ESF-2 is focusing on planning efforts which include catastrophic incident planning
- Catastrophic Incident Plans will be tested in the Cascadia Rising 2022 Exercise



Contact Information

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Catastrophic Planner

Emergency Management Division

Washington Military Department

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An Overview of the Washington Emergency Communications Coordination Working Group

WECCWG



***By Mark Glenn, MSW, ITILF
Chief Information Officer***



OVERVIEW



WHO AND WHAT IS WECCWG?



WHAT DOES WECCWG DO?



THE FUTURE OF WECCWG



HOW TO GET INVOLVED

Who we are...

The Washington Emergency Communication Coordination Working Group (WECCWG) is a community of professionals and experts from the public, private, tribal and nonprofit sectors within emergency communications across the Pacific Northwest who work together to provide reliable and resilient emergency communications throughout Washington state in times of crisis.

Started in 2016, the WECCWG has grown substantially and currently holds a tri-annual forum to bring our communities together to raise the collective awareness of the unique emergencies and challenges we must be ready to overcome together in Washington state.

Who should participate?

All local, state, federal, tribal, private, and nonprofit sector partners who support or manage emergency communication systems, communications service providers, business continuity professionals and others that have a stake in the public communications infrastructure are welcome.

ESF-2 Partners (*Is your agency on here?*):



PURPOSE



VISION



GOALS

PURPOSE

To forge and strengthen our public, private and tribal partnerships to enhance emergency communications statewide.

VISION

A community of professionals working together to provide reliable and resilient emergency communications throughout Washington state in times of crisis.

◆ GOALS ◆

- 1. UNDERSTAND THE THREATS WE FACE IN WASHINGTON**
- 2. KNOW EACH OTHER AND OUR INTERDEPENDENCIES**
- 3. PLAN AND EXERCISE TOGETHER**
- 4. ESTABLISH AND MAINTAIN STATE ESF2 ROSTER**
- 5. SEEK OUT AND ENGAGE OTHER CONTRIBUTORS**

◆ GOALS ◆

1. UNDERSTAND THE THREATS WE FACE IN WASHINGTON

- Natural & Technological

2. KNOW EACH OTHER AND OUR INTERDEPENDENCIES

- Establish & maintain active relationships
- Understand the capabilities & limitations of what each entity provides to the larger picture.
- Strive to know our interdependencies
- Identify & understand private, tribal, public, & nonprofit sector response priorities & timelines.
- Know who, how & when to call.

3. PLAN AND EXERCISE TOGETHER

- Prepare partners with realistic scenarios & expectations
- Figure out interoperability challenges before disasters strike
- Overcome information sharing challenges
- Identify/establish & refine policies, guidelines and/or agreements for companies, governments & tribes to work together.

◆ GOALS ◆

4. ESTABLISH & MAINTAIN STATE ESF2 ROSTER

- Document our experts, how to reach them & when/where they will be needed.
- Ensure all partners understand ICS/NIMS & ESF2
- Recommend trainings & job aids
- Ensure all partners understand activation levels, procedures & limitations for various EOCs/ECCs
- Review/update the CEMP, ESF2 Annex & other public communication documents

5. SEEK OUT AND ENGAGE OTHER CONTRIBUTORS

- Routinely identify other contributors
- Provide opportunities for expanded participation
- Recruit other participants
- Market & showcase WECCWG

CORE GROUP MEETINGS

- **What is it?**

The Core Group is WECCWG's governing body with representatives from the private, public, tribal and nonprofit sectors.

- **What happens?**

The Core Group meets during the months between WECCWG forums & is responsible for planning the next forum and leading work sessions.

- **How often?**

There are 3 Core Group Meetings and 3 Tri-annual Forums every year. Work sessions are scheduled as needed.

- **Who can attend?**

Anyone can attend the meetings, forums & work sessions to contribute however Core members will make all final decisions on behalf of WECCWG.

Tri-annual WECCWG Forum

- Each Working Group Forum focuses on a different theme based on a threat profile.
- Connects between 80-150 public, private, tribal & nonprofit sector partners within the public safety communications infrastructure
- Offers networking, presentations & hands on demo opportunities – with the mutual goal of being better equipped if disaster hits.

Upcoming Event

**Chemical, Biological, Radiological and Nuclear
Lummi, WA – May 9, 2019**



Where We've Been

TACOMA, WA
(Fall, 2016)

SEATTLE, WA
(Winter 2017)

SPOKANE, WA
(Spring 2017)

RICHLAND, WA
(Fall 2017)

OCEAN SHORES, WA
(Winter 2018)

FEDERAL WAY, WA
(Spring 2018)

ELLENSBURG, WA
(Fall 2018)

VANCOUVER, WA
(Winter 2019)

LUMMI, WA
(Spring 2019)



EARTHQUAKE



Prior themes

- Cyber threats
- Wildfires
- Radiological hazard
- Earthquake/Tsunami
- Catastrophic planning
- Public alert and warning
- Volcanos





THE FUTURE OF WECCWG

Where do we want our program to go?

Plans for expansion

- Larger events
- More frequent events
- Set locations with a rotation schedule to build lasting relationships with the local communities
- Hands on training sessions, work groups, panels, demonstrations, and workshops
- Increased involvement with the local Tribal governments and rural areas



The background features a large, faded circular logo. The outer ring of the logo contains the text "COMMONWEALTH EMERGENCY COMMUNICATIONS WORKING GROUP" in a serif font. The center of the logo depicts a stylized map of Australia with a compass rose overlaying it.

HOW TO GET INVOLVED

Core, Members, Sponsors and Guests – How do you fit in?

CURRENT CORE GROUP

Who is our core group?

The Core Group of WECCWG was originally composed of 14 Agencies, but has since expanded.

State Coord Agency:

Richard Hall, Mark Glenn, Bob Wherrett, Chris Utzinger – MIL IT & EMD

State Primary Agencies:

Rebecca Beaton – UTC

Alisha King, Mark Donges – WaTech

Shelley Westall – OCIO/WA OneNet

Fred Baker, Tim McDowell – WSDOT

Corrie Johnson – DOH

Local: City and County:

Ned Worchester – City of Seattle

Jon Bromberg – Eastside Fire & Rescue

Sandi Duffey – Grant County Sheriff's Office

Glenn Gorton – Office of Superintendent of Public Instruction

Jason Shirron – King County OEM

Randell Harris

Federal:

Laura Goudreau – FEMA; RECCWG Core

Bruce Richter – DHS

Mike Henson – NOA Net

Private: Telecom Service Providers:

Casey Muilenburg – Sprint

Pati Scanlan – T-Mobile

Carol Tagayun – AT&T

Nonprofit/Volunteer Organizations:

Steve Aberle, Monte Simpson – ARES/RACES

Clay Freinwald – WA SECC

Tribal Nations and/or ATNI Telecom:

Danae Wilson – NEZPERCE

Casey Broom – Tribal Liaison

If interested in becoming a core member please contact any Core Group WECCWG member.

Partners, members, guests ...

Want to be the first to know about upcoming events and meetings? Let us know! Or e-mail mark.glenn@mil.wa.gov directly to get on the mailing list.

Call for Speakers

Our speakers are subject matter experts in their fields and speak at our events on a voluntary basis. They are what make the WECCWG events so special and bring immense knowledge and value to our guests.

Suggestions and volunteers for speaking slots should reach out to any WECCWG Core Group Member with topic proposals. Selections will be made by the Core members.

SPONSORS

PAST SPONSORS

Thank you to all of our past sponsors!



... and more!

SPONSORSHIP, HOW IT WORKS

Our sponsor cover the cost of the venue, food service for lunch & breaks, and interpreters at each forum. Amounts are based on the cost needs for each event.

Sponsoring an event allows your company exclusive booth access at the event as well as a special sponsor presentation time slot to discuss their emergency communications topic.

Some events have required co-sponsorship or individual sponsorship.

CONTACT INFORMATION

Washington Emergency Communications
Coordination Working Group (WECCWG)

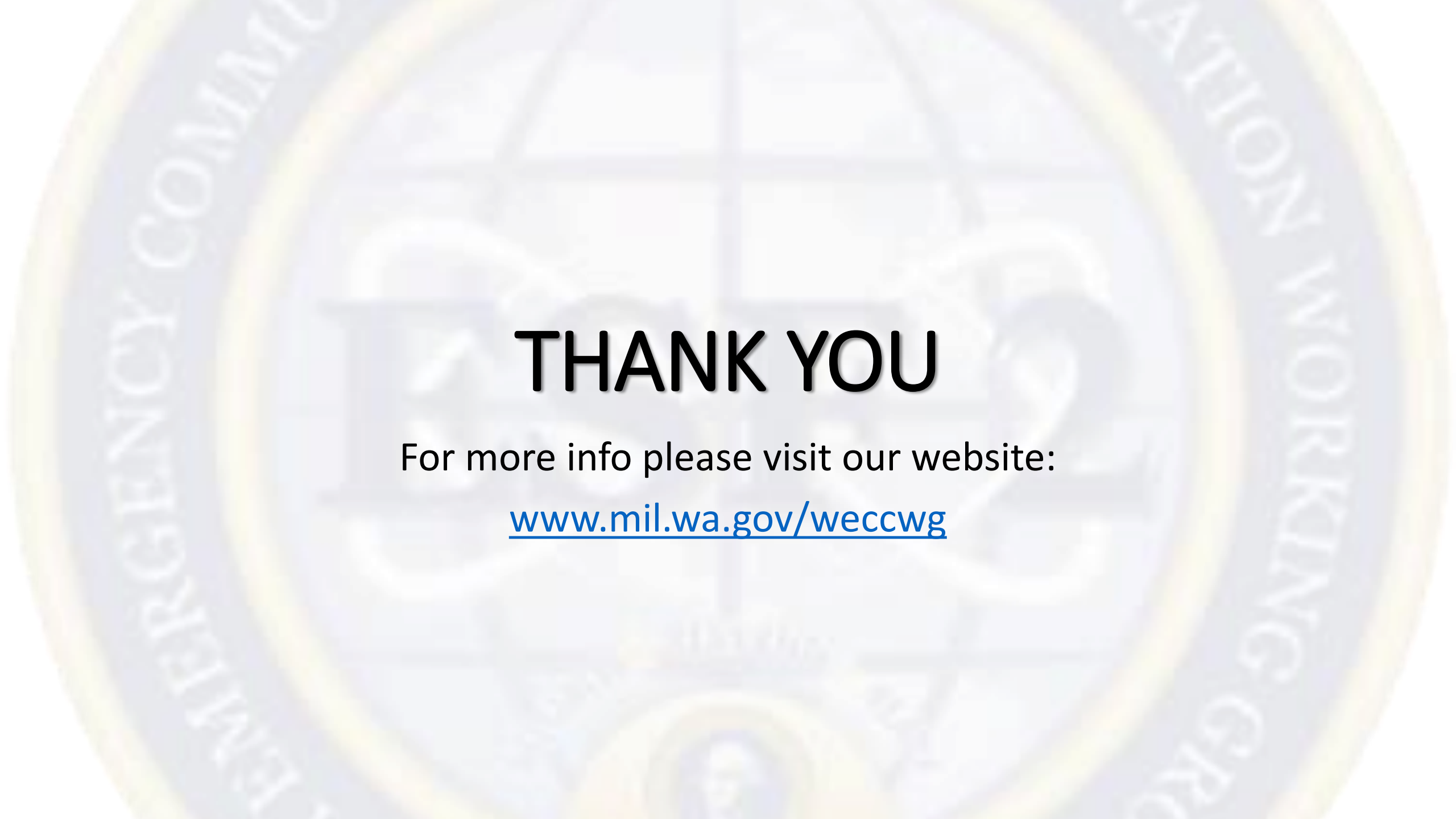
Aviation Drive BLDG 20B
Camp Murray, WA 98430

www.mil.wa.gov/weccwg

Sponsorship and Speaker interests or Questions
(253) 512-7575

Email - Mark.Glenn@mil.wa.gov





THANK YOU

For more info please visit our website:

www.mil.wa.gov/weccwg